

Abstracts

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nearly 1 in every 100 pregnant women was prescribed a medication associated with risk that potentially outweighs possible benefit according to established pregnancy risk classification systems. The medical care system needs to address this serious public health problem and focus on the most commonly prescribed drugs associated with fetal harm among pregnant women because prevention of these exposures may have the greatest public health impact with respect to drug-related teratogenicity.

WH2

DISABILITY AND ASSOCIATED COSTS AMONG WOMEN WITH EMPLOYER-SPONSORED INSURANCE AND NEWLY DIAGNOSED BREAST CANCER

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OBJECTIVE: Little is known about the impact of breast cancer (BC) and its treatment on health-related work loss among employed women. This study compared disability in a cohort of employed women with incident BC to non-cancer controls. **METHODS:** The cases were employed women, aged 18–64 with BC diagnosed between 1999–2005. Control women without cancer were matched 3:1 on age, comorbidity, and index year. Cases were selected from an administrative claims database (MarketScan) using a validated BC case identification algorithm. Short-term disability records were linked to the administrative claims. Productivity costs were calculated with a Bureau of Labor Statistics weekly mean wage, matched to subjects by age, sex, and geography. The durations of employment were described with separate Kaplan-Meier curves for cases and controls; differences were tested using the log-rank test. **RESULTS:** The average age of the cases (N = 704) and controls (N = 2112) was 48.6 years. Median months of follow-up were 29 for cases and 11 for controls (p < 0.001). First-year mean (SD) disability days were 60 (70) for cases vs. 5 (19) for controls (p < 0.05). The attributable first year disability costs were estimated to be \$4900 (95% CI: \$4468, \$5322) for cases vs. \$385 (95% CI: \$319, \$449) for controls (p < 0.001). In years 2 through 4, the number of disability days and associated costs were not statistically greater for the cases versus controls. At 1 year, 11.8% of cases no longer received employer-sponsored insurance compared to 55.5% of controls; at 4 years these figures were 43.6% and 93.5%, respectively (p < 0.001). **CONCLUSION:** The work loss associated with BC-related disability is substantial in the first year after diagnosis but the difference between cases and controls is not sustained in subsequent years. Shorter and longer-term employee retention is much higher for women with BC compared to those without cancer.

WH3

CLINICAL AND ECONOMIC OUTCOMES AMONG WOMEN USING LEVONORGESTREL-RELEASING INTRAUTERINE SYSTEM (LNG-IUS)

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OBJECTIVE: To compare clinical and economic outcomes in women using LNG-IUS one year before and one year after insertion. **METHODS:** Adult women (18+) prescribed LNG-

IUS during 2003–2004 were identified in the MarketScan claims database (2002–2005). Only women with two years of continuous eligibility around the device insertion date (1-year before and 1-year after insertion) were included. Clinical outcomes included were menorrhagia or irregular bleeding, dysmenorrhea, and fibroids-related symptoms. Economic outcomes included the number of emergency room visits, number of office visits, and health care costs. Both economic and clinical outcomes were measured and compared between the one year pre-insertion and one year post-insertion. McNemar's test was used to test for significant changes in dichotomous variables and the paired t test was used for continuous variables. **RESULTS:** Three thousand nine hundred seventy-nine women received LNG-IUS. Mean age was 33.6 years (S.D. = 6.7 years). During one year after the LNG-IUS insertion, women experienced significantly less dysmenorrhea (1.5% vs. 2.0%, relative risk [RR] = 0.74, p = 0.014) and less fibroids-related symptoms (2.1% vs. 2.4%, RR = 0.86, p = 0.046). No significant differences were found in menorrhagia or irregular bleeding. Emergency room visits also were significantly reduced (RR = 0.90, p < 0.001). Outpatient office visits dropped from 12.5 visits during the pre-insertion year to 10.4 visits during the post-insertion year (p < 0.001). The total direct health care costs were \$5565 during the year before LNG-IUS use vs. \$3141 during the year after, resulting in a \$2424 reduction (p < 0.001). The majority of the cost savings were due to the cost reduction associated with inpatient hospitalizations. **CONCLUSION:** During the first year after LNG-IUS insertion, women experienced significant less dysmenorrhea and fibroids-related symptoms. The use of LNG-IUS was also associated with reduction in resource utilization and health care costs.

WH4

PROBIOTICS IN PREGNANCY: A SYSTEMATIC REVIEW AND META-ANALYSIS OF THE SAFETY OF LACTOBACILLUS, BIFIDOBACTERIUM AND SACCHAROMYCES

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OBJECTIVE: Probiotics are live bacteria or non-pathogenic yeasts that colonize the gastrointestinal tract, providing health benefits to the host. Their safety has not been systematically investigated in pregnancy. Our objective was to review the evidence for safety of Lactobacillus, Bifidobacterium, and Saccharomyces during pregnancy. **METHODS:** Accepted were randomized controlled trials comparing probiotics and placebo given any time during pregnancy, at any dose, in any form, for any condition, and given ≥ 1 week. Outcomes included birth weight, gestational age (GA), rates of C-section, malformations (major/minor), and miscarriage. Two independent reviewers searched databases (MEDLINE, OLD MEDLINE, CINAHL, Cochrane Database, DARE, Allied and Complementary Medicine, EMBASE, AltHealthWatch, American Botanical Council, Natural Database, and Natural Standard) from inception to September 2007, hand-searched their bibliographies, and contacted experts to identify other trials. Two reviewers extracted data and assessed study quality using the Downs-Black checklist. Discrepancies (study eligibility, data, quality) were adjudicated through consensus. Heterogeneity was assessed with chi-squared and I-squared tests, publication bias with Begg-Mazumdar test. Random-effects models combined data. **RESULTS:** Nine studies examined 1706 patients for three outcomes; none examined birth defects or miscarriages. Publication bias was not detected